

CLAIMS

1. A printing device comprising:

a printer configured to print upon paper;

a surface-engaging member associated with the printer and configured to physically engage a paper surface, the surface-engaging member comprising a flexure material body that is supported in a cantilevered disposition proximate a piece of paper to be printed upon by the printer;

a reflective member joined with the surface-engaging member;

one or more light sources in operable proximity to the reflective member and configured to project light energy toward the reflective member; and

a position detector mounted in operable proximity to the reflective member and configured to receive light energy that is reflected from the reflective member, the surface-engaging member being configured for displacement by the paper's surface in accordance with variations in the roughness of the surface sufficiently so that light that is reflected by the reflective member and received by the position detector can be utilized to ascertain a measure of the paper surface's roughness.

2. The printing device of claim 1 further comprising a control system configured to modulate one or more print parameters in accordance with the measure of the paper surface's roughness.

3. The printing device of claim 1 further comprising a parameter manipulator coupled with the position detector and configured to modulate one or more print parameters in accordance with the measure of the paper surface's roughness.

4. The printing device of claim 1, wherein the flexure material body comprises a metal flexure material body.

5. The printing device of claim 1, wherein the flexure material body comprises first and second ends, the body tapering between the two ends.

6. A method of detecting the roughness of a paper surface comprising:

engaging a paper surface with a surface-engaging member;

projecting light energy towards a reflective member associated with the surface-engaging member in a manner in which the light energy is reflected by the reflective member;

receiving light energy that is reflected by the reflective member; and

ascertaining, from the received light energy, a roughness measurement of the paper surface's roughness.

7. The method of claim 6 further comprising using the roughness measurement to adjust one or more printing parameters associated with a printer that is to print upon the paper's surface.

8. A printing device comprising:

a printer configured to print upon paper;

surface roughness detection means within the printer configured to ascertain a measure of a paper surface's roughness; and

a control system coupled with the surface roughness detection means and configured to modulate one or more print parameters in accordance with the measure of the paper surface's roughness.